CLAIMS

1. A heat-sensitive recording material comprising a support and a heat-sensitive recording layer formed on the support and containing a leuco dye and a developer,

the developer being N-p-toluenesulfonyl-N'-3-(p-toluenesulfonyloxy)phenylurea, and

the heat-sensitive recording layer containing (a) at least one fluoran-based leuco dye with a melting point of 190 to 230°C and/or (b) at least one pigment selected from the group consisting of aluminum hydroxide, amorphous silica, kaolin and talc.

2. The heat-sensitive recording material according to Claim 1, wherein the heat-sensitive recording layer contains N-p-toluenesulfonyl-N'-3-(p-toluene-sulfonyloxy)phenylurea as the developer and (a) at least one fluoran-based leuco dye with a melting point of 190 to 230°C and (b) at least one pigment selected from the group consisting of aluminum hydroxide, amorphous silica, kaolin and talc.

3. The heat-sensitive recording material according to Claim 2, wherein the fluoran-based leuco dye with a melting point of 190 to 230°C is 3-(N-ethyl-p-

toluidino)-6-methyl-7-anilinofluoran.

4. The heat-sensitive recording material according to Claim 2, wherein the fluoran-based leuco dye with a melting point of 190 to 230°C is 3-(N-ethyl-p-toluidino)-6-methyl-7-anilinofluoran and the pigment is aluminum hydroxide.

5. The heat-sensitive recording material according to Claim 2, wherein the heat-sensitive recording layer further contains a sensitizer.

6. The heat-sensitive recording material according to Claim 5, wherein the sensitizer is at least one member selected from the group consisting of 2-naphthyl benzyl ether, 1,2-di(3-methylphenoxy)ethane and 1,2-diphenoxyethane.

7. The heat-sensitive recording material according to Claim 1, wherein the heat-sensitive recording layer contains N-p-toluenesulfonyl-N'-3-(p-toluene-sulfonyloxy)phenylurea as the developer and (b) at least one pigment selected from the group consisting of aluminum hydroxide, amorphous silica, kaolin and talc.

8. The heat-sensitive recording material according to Claim 7, wherein the heat-sensitive recording layer contains a fluoran-based leuco dye with a melting point under 190°C.

9. The heat-sensitive recording material according to claim 7, wherein the pigment is aluminum hydroxide.

10. The heat-sensitive recording material according to claim 7, wherein the heat-sensitive recording layer further contains a sensitizer.

11. The heat-sensitive recording material according to claim 10, wherein the sensitizer is at least one member selected from the group consisting of 2-naphthyl benzyl ether, 1,2-di(3-methylphenoxy)ethane and 1,2-diphenoxyethane.

12. The heat-sensitive recording material according to Claim 1, wherein the heat-sensitive recording layer contains N-p-toluenesulfonyl-N'-3-(p-toluene-sulfonyloxy)phenylurea as the developer and (a) at least one fluoran-based leuco dye with a melting point of 190 to 230°C.

13. The heat-sensitive recording material according to Claim 12, wherein the fluoran-based leuco dye with a melting point of 190 to 230°C is 3-(N-ethyl-p-toluidino)-6-methyl-7-anilinofluoran.

14. The heat-sensitive recording material according to Claim 12, wherein the heat-sensitive recording layer further contains a sensitizer.

15. The heat-sensitive recording material according to Claim 14, wherein the sensitizer is at least one member selected from the group consisting of 2-naphthyl benzyl ether, 1,2-di(3-methylphenoxy)ethane and 1,2-diphenoxyethane.

16. The heat-sensitive recording material according to Claim 1, which further comprises, between the support and the heat-sensitive recording layer, an undercoat layer comprising as the main components a binder and at least one member selected from the group consisting of (i) an oil-absorbing pigment with an oil absorption (according to JIS K 5101) of at least 70 ml/100 g and (ii) organic hollow particles.

17. The heat-sensitive recording material according to Claim 1, which further comprises, on the heat-sensitive recording layer, a protective layer comprising as the main components a binder which has a film-forming ability and, if desired, a pigment.

18. The heat-sensitive recording material according to Claim 16, which further comprises, on the heat-sensitive recording layer, a protective layer comprising as the main components a binder which has a film-forming ability and, if desired, a pigment.